Now I'm

STOP LOSING YOUR YOUNG CHICKS

Start them with STAR-CHIC-It is the right food to put

the Baby Chicks on their feet. Try Star-Chic-A and watch them

grow. 10-cent and 40-cent packages. Larger sizes in sacks. STAR-EGG-O

makes hens lay fertile eggs and keeps young chicks well. Try a 25-

cent package.
Star Remedies and Foods are for sale by all poultry and livestock, feed and seed dealers.

GOLDEN & CO., Sales Agents,

Washington, D. C.

Beall's S. C. White Leghorns

INCUBATORS

Buckeye Prairie State, Free Free Catalogue Catalogue)

F. W. BOLGIANO & CO.

1009 B St. N.W., Washington, D. C. Washington's Leading Seed and Poultry Supply House

S. C. WHITE Leghorns PALMER'S COMMERCIAL STRAIN.

Baby Chicks Eggs for Hatching Breeding Stock

Custom Hatching 5,000-EGG CAPACITY. Pimmit Poultry Plant RALPH L. PALMER, Prop., McLEAN VA. Near Selva Station on Great Falls Trolley.



Leghorns Young and Rice Strains.

The Big, Stay-White Kinds. Bred to Lay. Eggs from Large, Vigorous, Pure White Stock. 15 Big White Eggs, \$1.00. 100 Big White Eggs, \$6.00.

Every Egg Guaranteed Fertile. THOMAS C. POLLOCK, 1614 W St. S.E., Washington, D. C. Phone Linc. 1670.

CARL D. RITTER, Prop. Phone N. 756. J. P. V. Ritter's Son ATTENTION!

Chicken and Pigeon Raisers. GET RITTER'S SCIENTIFIC MIXTURE OF HEN SCRATCH FEED AND DRY MASH, which fills the basket when eggs are highest. No higher than inferior feed, and has to be seen and tried to be appre-ciated. Get a 10-pound package for 25 cents and be convinced. ents and be convinced. 706 O ST. N.W., WASHINGTON, D. C.

World renowned Imperial Ringlets Barred Plymouth ROCKS. Pen headed by first prize sweep-take champion cockerel at Washington Warrenton shows; mated to all first heas other pens headed by first prize cocks a eading shows; mated with prize-winning

BOTH MATINGS.
Eggs, \$2.00, \$3.00, \$5.00 for 13.
Took five firsts and five seconds at War. FRANK A. KERR. Phone W. 612. 1361 Wise

GCS-Barred Rock, best strain, \$1 per setting, \$5 per hundred, few rancy on red coekers, \$2.50 each. 3112 South Dakota ave. n.e.. Woodridge; North 4340.

PITTSFIELD STRAIN 8. C. White Leghorn and Barred Rock eggs, \$1 per 15; \$6 per 100; cockerels, \$2 up; two Cypher incubators, capacity, 244 and 390 eggs. A. C. Johnson, 2314 Naylor rd. s.e.

capacity, 244 and 380 eggs.
2314 Navior rd. s.e.

ENGLISH SETTER bitches for sale: two. six
months old; well bred and good individuals;
Aircdale brood bitch, two and a half years
old. Dr. L. Sherman Cleaves, 2130 P st.
14* BREEDING COCKERELS; Cypher's trap-nested standard white Wyandottes; 4 for sale. 812

"NO EGGS-NO PAY." That's what we say of CONKEY'S POULTRY TONIC. It makes bens just pure tenic.

BARRED ROCKS, Black Minorens, White Leg-horns: book orders now for eggs and chicks: 15 eggs for \$1.50; 100, \$7; chicks, \$12.50 per 190; Mammoth Pekin ducks, Beechbank Poul-try Yards, Forest Glen, Md. Tel, Ken, 51. COWS — Two thoroughbred young Holstein helfers, two years old; will be fresh in March. Wm. Seldenberg, Holmead and Spring road.

COCKERELS—Several thoroughbred Barred Rock cockerels; E. B. Thompson's ringlets; beanties. C. E. Laser, Quarrels st., Kenilworth, D. C.

BULLING-For sale, thoroughbred English brindle buildog, 2 years old; good home de-sired. Apply L. Stewart Barr, the Wyoming, PIGEONS Forty pairs Carneaux, Maltese and Runts; fine breeders, all mated and working; \$60 for lot. Thos. F. Scott, 1411 N. Y. ave.18*

BEALTHY HENS LAY, Keep them in good condition by feeding CONKEY'S POULTRY TONIC in the mash every day. Keeps them tened right, keeps egg-laying organs in good condition and brings more eggs. No filtermat pure tonic, Get a pail at your dealer's.

TEN THOROUGHBRED R. I. RED LAYING PULLETS, \$1.50 EACH, one West 1665. 1620 Wisconsin ave. n.w.

Phone West 1965. 1620 Wisconsin ave. n.w.

COLLIE FOR SALE—Best dog in Washington.
Never been beaten. Now in fine show form,
Price reasonable if purchased at once. Box
163. Star office.

E. C. REDS—Eggs from pen, rich colored
"Owen Farms" birds, \$2.50 per 15; also from
best "Golden" Buff Rocks. In the country,
\$2.50 sitting, few rich-colored buff occkerels
and pullets for sale cheap. W.F. Orrison, E.
Falls Church, Vs.

132
PIGEONS for sale—About 25 pairs of Sunt and

Falls Church, Vs. 13°

PiGFUNS for sale—About 25 pairs of Runt and Mondanes, the largest of squabrarising piyeons, cost \$200; will sell for \$50 if taken at once. Inquire janitor, 35 B st. n.w. 13°

ROSE-COME REDS—Limited number of fertile eggs; some heavy layers. Lester Thompson strain, \$1 for 15. C. B. McDonnel, Glen Echo, Md.

BREEDERS-Three large Light Brahma cockerels, \$2.50 each, Apply 3313 9th st. n.e., POMERANIAN PUPPY-White; 7 weeks old

RIGHT IN THE DRINKING WATER. That's where to put CONKEY'S ROUP REMEDY when hirds sneeze and water at mouth and where to put CONKEY'S ROUP REMEDY when birds sneeze and water at mouth and nose. Give battle with Conkey's and you'll not lose good fowls from roup. You'll keep your profits, too. Get a package at your dealer's.

BUY HENS and pullets that are now laying opportunity to obtain splendid bargaius. A. F. German, Room 15, Dist. bldg.

German, Room 15, Dist. bidg.

INCUBATORS—390-egg Cyphers, \$20; 200-egg
Homer City, \$7.50; 500-egg Queen, \$32.50;
Cyphers adaptable hovers, \$4.50 each; brooder
stove, \$10; Mann bone grinder, \$8. Allen
Poultry Farm, Riverdale, Md. Phone Hyatis.
18* 400 PURE BRED White Rock chickens, direct from Fischel pens; 250 pullets, just ready to lay; 50 one-year-old hens laying; this stock is the best in the country; can be bought right, W. P. Richardson, R. F. D. No. 4. Alexandria, Va., or the Colorado bidg., Wankington, D. G.



refers to a suggestion that appeared in this column some weeks ago to the effect that a few drops of formalin added to the water in which oats were soaked for sprouting would prevent mold, and asks how much formalin should be used. If half a bushel of oats are being soaked preparatory to sprouting, about a gallon of lukewarm water will be required to soak the oats properly. To a gallon of water, therefore, add about ten drops of formalin. Soak the oats in this for twenty-four hours—some soak only over night but the longer in this for twenty-four hours—some soak only over night, but the longer time is better—and then place the oats, still wet, in the sprouting trays. The use of formalin in this proportion will prevent mold, and at the same time the quantity of formalin will not be sufficient to injure the oats as feed.

Star-Chic-A At this time of the year, when scores of men are planning to make a start in the poultry business and other scores, dissatisfied with the success they have attained, desire to change breeds, the poultry editor is in receipt of many letters asking advice as to breeds best adapted to the general purpose poultry plant, large or small. Often in the past the statement has been made in this column that the editor would not recommend any breed tor would not recommend any breed above any other, and this statement must be reiterated. Poultrymen, amaabove any other, and this statement must be reiterated. Poultrymen, amateurs, as well as those who have been in the business for several years, will succeed best with the breed they like best, no matter what that breed may be. Some men will fail with the large, relatively slow-moving breeds, like the Plymouth Rocks, Wyandottes, Orpingtons and the like, will succeed at once with such breeds as the Leghorns, Campines, Andalusians, etc., and vice versa. No business in the world, perhaps, offers greater opportunity for the exercise of inflividual preference than the poultry business. The only safe plan is to read up on the various breeds, learn from reading just what the characteristics of the breeds are, and then make a selection. If the first choice is not the best one the fact will soon be learned, when a change can be made. However, the fact remains that nine-tenths—or perhaps a larger percentage even than this—of the big commercial poultry farms of the country use single-comb white Leghorns, usually combined with white Plymouth Rocks, the first for egg production and the latter for table poultry.

Just now is the time to urge upon Just now is the time to urge upon every man or woman who contemplates starting in the poultry business the necessity for providing the proper type of houses and for so arranging the plant as to eliminate as far as possible all unnecessary work. If the separate colony plan is adopted, in which the fowls are housed in small buildings accommodating twenty-five to fifty layers, the colonies should be located sufficiently close together to make it possible to take care of all of them with the minimum of walking make it possible to take care of all of them with the minimum of walking and labor. If the larger type of house is to be used, in which 100 to 500 fowls are to be cared for in a single flock, have it so located that it is readily accessible. In any case, bear in mind that in this locality too much ventilation, in reason, cannot be pro-vided. If the entire front of the house, be it a colony house or a single large. be it a colony house or a single large building, is open—the openings to be closed in bad weather by means of nuslin curtains—so much the better just so the fowls are protected from Just so the fowls are protected from drafts when on the roosts at night, and from cold winds, driving rains, or possible snows during the day. Light and ventilation are the principal secrets of proper construction of poultry houses; after these come handiness, arrangement and advantageous location in relation to the other buildings on the place.

A correspondent asks that a reliable remedy for blackhead in turkeys be published in this column. Writing from Virginia, he says that his turkeys each year develop the disease, which kills them by the score, until the business of raising turkeys is unprofitable. The correspondent says his turkeys have practically unlimited range, including a wood lot of more than fifty acres. The fact is, no remedy has as yet been discovered for blackhead. A bulletin by Prof. Milligan C. Kilpatrick of the poultry department of Ohio State University, recently issued by the university, gives a number of suggestions for preventive measures. These are:

Protect the yards and flocks which may have the goods fortune to be uninfected with the blackhead organism by a thorough examination of all new stock, whether turkeys, fowls, geese or other domstic birds.

Keep the turkeys on grounds which are as fresh as can be obtained and, above all, keep them isolated from

and at once isolate any bird which gives evidence of the disease. To facilitate such observations it is helpful to leg-band each individual and to record its weight from time to time. If it is known that blackhead is present in any of the poultry, that yard and house should be kept free from sparrows, rats and mice, which are carriers of the organism which causes the disease.

14½ per cent in experis descriptions of poultry houses reference is frequently made to muslin screens. Actually muslin is not often used because it is too thin to exclude rain and in extremely cold times is almost too open. In eastern Pennsylvania six-ounce duck gives the best ventilation. Farther north, as in Maine, ten-ounce ONE PER S duck is generally used. In more southern sections, or where the temperature is moderated by some cause peculiar to that part of the country, muslin would probably be heavy enough. For the front of the roosting closet muslin is plenty heavy enough, except in the northern part of the country, where six-ounce duck would most likely be needed.

A warm mash once a day, made by cooking any of the above mentioned vegetables until soft, with a little meat scrap and salt and pepper added and stiffening the whole with bran until not a bit wet or sloppy, is a great inducement for the beauty.

stiffening the whole with bran until not a bit wet or sloppy, is a great in-ducement for the hens to lay. A few oats may be cooked with the vegeta-bles, and they make a fine feed. Feed the mash in clean troughs.

Wheat is one of the best of ration

for the mash, mixed stiff and dry,

"Withstands All Weather -Best for Poultry Houses"

"I have found RU-BER-OID Roofing most satisfactory for roofing poultry houses and have recommended its use in South Carolina, savs Frank C. Hare, poultry expert for U. S. Department of Agriculture and also for the South Carolina State Experiment Station. RU-BER-OID is easily laid and withstands all weather conditions better than any similar roofing materials I have had experience with.

You will save money by using the genuine

on your poultry houses and other buildings. RU-BER-OID costs more than ordinary roofing, but the difference in wear is far

good as new. dealer has it or

can get it.

"Building a Poultry House" contains valuable plans for the best types of buildings. Mail the coupon now and we will tell you where you your own neighborhood.

NEW YORK and CHICAGO

site which I mark X. I intend to roof a_

Building a Poultry House
Roofing a Home
Building a Bungalow
Building a Barn
Building Your Own Garage
Covering Your Factory
Artistic Roofs
If a dealer, check here

Live Stock Jottings.

Those beginners who are planning to

increase the rations gradually. Overfeeding or a sudden increase in the ration will not cause blackhead, but frequently causes death of birds in which blackhead is present.

The bodies of all birds which have died of blackhead should be burned or buried immediately.

On most farms, it is out of the question to put into practice all of these recommendations, especially those in regard to the isolation of the flock. The general practice is to allow the turkeys to mingle with the other fowls. Unless these recommendations can be rather closely followed, however, it is not advisable to attempt to raise turkeys after the disease has once made its appearance. The turkeys in your flock which do not appear to be infected may become chronic carriers of the disease. If it is necessary for you to rear turkeys next season on ground which has been occupied by fowls or by diseased turkeys, you are very likely to experience the same trouble. ngage in dairying, or who are on the ookout for even one or two cows to supply milk for the family-with perhaps Head points of poultry as indications of the qualifications of the fowls in the matter of egg production or table quality might be taken more seriously in this country than they are, according to an article in a recent issue of a farm publication of wide circulation. The writer of the article says the Belgian peasants, as well as peasants and farmers of other continental European countries, declare that yellow or red earlobes invariably accompany meat, or table, qualities; that white earlobes mark the egg-producing fowl, and that smooth, kidlike texture of the earlobes indicates smooth-shelled eggs.

or table, qualities; that white earlors mark the egg-producing foul, and that smooth, kildlike texture of the earlors the the productive dark and maintained to the highest productive and maintained to the highest productive dairy cow must be accompanied by variations such as are lect indicated. It an not aware of any relations to variations used as a productive dairy cow must be accompanied by variations such as are lect indicated. It an not aware of any relations to variations used that the body should be feeled by this mentions. A further point is with respect to the first production of the earlobes. It is not the size of the earlobes that are specially the size of the earlobes. The old dide at that the body should be of the proper day and maintained to the highly production of the earlobes. The old dide at the body should be feel to make a parcel post trade of 400 pounds of the proper day and an appeal post trade of 400 pounds of an appeal and parcel post trade of 400 pounds of the proper day agent and referred to the county agent and referred to the creamery.

A Vermont creamery has established a parcel post trade of 400 pounds of the county agent and referred to the creamery.

A Vermont creamery has established a parcel post trade of 400 pounds of an aprecial post trade of 400 pounds of the county agent and referred to the creamery.

A Vermont creamery has established a parcel post trade of 400 pounds of the county agent and referred to the creamery.

A Vermont creamery has established a parcel post trade of 400 pounds of the county agent and referred to the creamery.

A Vermont creamery has established a parcel post trade of 400 pounds of the county agent and referred to the creamery.

A Vermont creamery has established a parcel post trade of 400 pounds of the creamery has established and referred to the creamery.

A Vermont creamery has established a parcel post trade of 400 pounds of the creamery

combs that are large in relation to the size of body. The Belgians operate on the principle that pullets of the races or families in which the cockerels show their sex by growth of comb at an early age are always those that begin to lay soonest and viscounts. usually prominent. Their size indi-cates the amount of the blood flow that passes through the udder, and since this is directly related to milk production, it is a good point to ob-serve. to lay soonest, and vice versa, in that there, is a direct correlation between the comb and wattles and the reproductive organs, and that redness of the former is not arrived at until the latter are active. They also believe the crow is a sure indication, which opens another question.

With potatoes to be had at relatively low prices as compared with corn and other grains, stockmen of this country are looking into the possibility of utilizing the tubers for feeding hogs. Many experiments have been conducted in Germany and other foreign countries as well as a few in the United Sates to determine the value of potatoes as feed for swine. In Ireland and Germany farmers feed large quantities of potatoes annually. From experimental data it has been concluded that four to four and one-half bushels of potatoes when cooked are equal to about one bushel of corn for putting gains on hogs. Therefore, if corn is worth 80 cents a bushel, potatoes when fed to hogs would be worth only 18 to 20 cents a bushel. There may, however, be instances where it would be more advantageous for the farmer to feed to hogs right on his own place at least part of his crop rather than to haul these potatoes to an already overloaded market. are active. They also believe the crow is a sure indication, which opens another question.

The texture of the comb and wattles is indicative of the grain in flesh or muscle upon the body. Fine-grained comb and wattles are found where the flesh is similar. When these two head ornaments are coarse or rough the flesh upon the body is the same.

Up to the present time little attention has been paid to the practical value of external characteristics, study of which opens a wide field for investigation. In the drafting of standards for breeds many mistakes have been made, not a few of which are a result of absence of positive knowledge. For what are known as utility breeds it would be of the greatest importance if such were available. How far increased whiteness in earlobes and paleness in beaks and legs are due to and betoken loss of virility or are due to other causes has yet to be determined. A strong argument against using in already overloaded market.

A strong argument against using pullets as breeding stock is made by Prof. W. A. Lippincott of Kansas Agricultural College, who says a series of experiments and long continued investigation have proved to his satisfaction that the continued use of such breeding stock is the cause of small fowls and small eggs.

"The pullet," says Prof. Lippincott, "begins to lay when she is six to nine months old. This, of course, varies with the individuals and breed. Because she lays, however, it does not

you were to weigh another hundred ment.
eggs from the same birds you would meal find that the hundred eggs laid after of the

If the foal has been properly cared for during the summer months, being fed a little grain in addition to the roughage and dam's milk, weaning time will be merely a matter of sepa-

The important stage of the young-ster's life is now at hand. Separation from the dam must be complete to be satisfactory, and the colt kept in a small lot fenced either with boards or poles. While all colts may not run into the wire, the one that tangles it-self in the wire is invariably the most valuable.

The weaning that is most successfully accomplished is the one through which the colt suffers the least setback in growth. If at weaning time the colt can eat its full allowance of grain, two or three pounds of oats or one and one-half pounds of oats and two pounds of ground barley mixed together, with plenty of clean alfalfa or timothy hay, it will continue growing and cease to fret for its dam.

The common tapeworm of lambs is one that has a habit of getting into the duct leading from the liver, and for this reason many who have examined sheep, dead of disease, have suspected the tapeworm of causing the death. It might be well to state that more than 60 per cent of all western lambs have these tappeworms, as evidenced by finding them on the killing floors at the large packing houses. While it must be admitted that in a few instances they may cause some trouble, yet it is not believed that they are responsible for many of our lamb are responsible for many of our lamb losses. In 1880 the average annual egg yield

of each hen in the United States was thirty-seven, while now it is seventy. Some experts think it ought to be 100.

It is rather common for veterinarians to diagnose tapeworms in dogs, and in about 95 per cent these diagnoses are correct, but that the tapeworms in these animals are responsible for disease is not at all evident, except in a very small percentage of cases. So it is with these taopeworms in lambs. They can always be found in posting any large number of animals, but that they are responsible for any serious disease is evident only in a few cases.

Extensive investigations have been carried on at the lowa station during the last four years, and the results so far at that station indicate that there is real economy in allowing hogs to have access to the self feeders. The Nebraska station has undertaken a line of experimental work in testing out this feeding plan, and the results so far harmonize very closely with those obtained at the lowa station.

Wheat is one of the best of rations for the laying hen. Clover hay or siftings are not exactly a green food, but are nitrogenous food and about as near a green food as we can get late in winter. Steam or scald the leaves or siftings or run some of the hay through a feed cutter and then steam it. A good way to feed the clover leaves, etc., is to place them in a bucket, add some boiling water and cover snugly to keep the steam in. After it has stood for half an hour thicken with wheat bran and feed warm. Use hot water to make the desired wetting for the mash, mixed stiff and dry.

Charging the corn at 63 cents a bushel, the price paid for it during the time the feeding test was in progress, and pricing the tankage at \$2.50 per hundredweight, the total cost of feed eaten amounted to \$48.14 For this cost 1,191 pounds of gain were made, making the gains cost \$4.04 for 100 pounds. Computing the gains made on the pigs as worth 6 cents per pound, a price of 99 cents per bushel was received for the corn fed.

It is interesting to note that the pigs ate an average of 6.14 pounds of corn and .51 pound of tankage a day. This shows that they consumed the corn and tankage in the proportion of twelve parts corn to one part figures according to generally accepted figures for the digestibiblity of corn and high-grade tankage, this giving a nutritive ratio of about 1.6.5. This indicates that the old hand method of feeding, in which it was assumed that one part of protein to every six or seven parts of carbohydrates was about correct for economical gains, was directly in line with the desires of the pigs' appetites.

It is true, as pointed out by Mr. Lee, hat hogs, when allowed to balance It is true, as pointed out by Mr. Lee, that hogs, when allowed to balance their own ration, consume grain and concentrates in approximately the same proportion as is recommended in the recognized feeding standards. There is this difference, however, that the fattening hog does not require the same relative proportion of concentrates from day to day. In the beginning he will consume a larger proportion of the protein feeds, while toward the end of the finishing period the ration is more largely made up of the heat-forming and fat-forming foods. This is the keynote of the whole "free choice" system, apart from the fact that this plan of feeding involves less labobr than the old-fashioned system of feeding grain two or three times a day and supplementing it with a considerable supply of slop.

A Vermont creamery has established

The soil is a very important factor in gardening. Sandy soils are adpated to early vegetables; the loam soils to tomatoes and muskmelons, and the muck soils to the nitrogen feeders—lettuce, cabbage, celery and onions.

Enormous numbers of cabbage and onion plants of different varieties are now grown along the seacoast of North and South Carolina, where the cold winds make them hardy, and are sent north for early spring planting. They are called frostproof, and are undoubtedly able to resist somewhat our late spring frosts. One grower thinks he gains two weeks with cabbage by this method.

Truck crops suffer least from fungi in seasons that open with a cool spring and end with a very hot summer, with a rainfall below the average.

A big spoon comes handy for many purposes. With it you can stir up mashes for the hens, mix the feed for the hogs, fix the horse's ration and measure out tonics for the stock And it costs but a trifle.

Are you keeping up the fertility of your land? This is especially important to the fruit and vegetable grower. Studyour fertilier probblem this whiter and get ready to act next spring. It will pay

If you are not busy now is a good time to go through the orchard and pick up and burn all fallen twigs and branches, since these may be harboring injurious

Three or four acres of alfalfa, with

an acre devoted to garden truck, and another acre to poultry, and cow pas-ture, with a few cows, a hundred chickens, and three or four brood sows

When land begins to need lime it is a waste of time and money to continue cultivating it until this need is supplied, for the economical use of every fertilizing material, including manure, depends upon the lime supply. If this is deficient, everything else must fall short of its possible attainment. Lime neutralizes acid soil and sweetens it.

plied according to the experience of the agricultural experiment station. whose help is always available.

All success in the cultivation of the All success in the cultivation of the soil comes from the application of scientific methods. The application of scientific methods in practical agriculture makes of us progressive farmers. We are progressive to the extent of applying scientific methods to our agricultural work. The application of scientific methods makes us practical.

It is economy to use a heavy grade of woven-wire fabric for permanent farm fences. The cost of woven wire is based upon its weight, and a reduction in cost may be obtained by using a style of fencing that has the wire spaced only as close together as is needed to meet the requirements. It is false economy to reduce the first cost of the fence by using a light grade of wire.

There is no better time to get rid of the stumps in your fields than during the winter months. So long as stumps remain in the field, one will not be able to use there the improved machinery that he should use. He will continually have to be lifting the plows and driving the binder and other machinery around so that he can get by, whereas if the stumps were removed, one could go straight ahead without trouble. Stumps also occupy land that could be used for crops if the stumps were removed.

There are several ways of getting

At the Langdon, N. D., substation it was found that wheat following corn, manured ten loads to the acre, was increased seven bushels more than wheat on similar corn ground, but not manured. And the next year barley grown on the same land was increased seven and one-half bushels, and the good effects of the manure will extend to one or two more crops.

manure decays and so the good effects from it become available more slowly. When plowed under for corn the soil is well packed onto the manure, which hastons its becoming available.

Pasture land that is to be plowed up soon is a good place to spread the manure. It stimulates the grass, and the manure decays some, so it is in good condition for being worked into the soil and for improving it when plowed under. The pasture also has the advantage that the manure can be spread on it at any time. Meadow that is tobe plowed up is also a splendid tobe plowed up is also a splendi place for applying the manure

It has been found that better re turns are secured from the manure when light applications are made. Six to eight loads per acre is a good amount to apply.

The application of manure is the cheapest means of returning organic or vegetable matter to the soil, and the maintenance of a good supply of decaying organic matter is the first and most important step in the maintenance of the productive capacity of the soil. It gives the soil better tilth, increases the availability of the mineral elements of plant food and imperal elements of plant food and imperal elements. eral elements of plant food and im-proves the water-holding capacity of the soil, in addition to being a source of nitrogen as a plant food.

The use of arsenical sprays and the removal of the bags or cases by hand picking are recommended by specialists in the Department of Agriculture as means of controlling the bag-worm, a caterpillar which frequently does much harm to shade trees, shrubs, hedges, and in particular to evergreens. This insect has a curious habit of constructing for itself a bagilke case, in which it crawls about on the intested trees. These cases are conspicuous objects on trees from which the leaves have fallen, and it is therefore comparatively easy to remove them by hand from deciduous trees in the winter time.

The amount of damage that the bag-worm does varies greatly at different times, serious complaints having been received in recent years from New Jersey, Maryland, Virginia, West Vir-ginia, Ohio, Indiana, Illinois, Oklahoma and Kansas. The pest is not frequent north of southern New York and the central portions of Ohio and Pennsyl-vania. Its greatest damage is prob-ably done to trees and shrubs along the streets and in the parks and pri-vate grounds in cities and towns. It is a general feeder, but displays par-ticular fondness for evergreens, es-pecially for arboryitae.

KEEPING THE WOLF FROM THE DOOR WITH POULTR\

A Minister's Success With Chickens When Illness Took Him From His Work.

Importance of Selected Stock, Business Methods, Good Values to One's Customers.

> BY E. B. TEMPLER. (Copyright, 1916.)

recultural Collège, who says a series of experiments and long continued insection that the continued use of such breeding stock is the cause of small fowls and small eggs.

"The pullet," says Prof. Lippincott, "Begins to lay when she is six to nine months old. This, of course, varies with the individuals and breed, Because she lays, however, it does not follow that she has reached maturity. Pullets' eggs are considerably smaller than hens' eggs. In fact, if you were to weigh another hundred with cornmeal or other grain supplements and long continued insection that the continued use of such was to identify poison bottles in the selection of what I thought to be ways to identify poison bottles in the selection of what I thought to be ways to identify poison bottles in the selection of what I thought to be ways to identify poison bottles in the selection of what I thought to be ways to identify poison bottles in the dold magazine gives some ingenious ways to identify poison bottles in the dold magazine gives some ingenious ways to identify poison bottles in the dold magazine gives some ingenious ways to identify poison bottles in the dark and to eliminate all chance of the selection of what I thought to be a selection of what I thought to be a selection of what I thought to be ways to identify poison bottles in the dark and to eliminate all chance of the selection of the thought to be a selection of what I though the beat ways to identify poison bottles in the dark and to eliminate all chance of the back was to identify poison bottles in the dark and to eliminate all chance of the back was seen later on I lacking succulers are said to the cork leaving about eight and the cork leaving about eight and the cork le Having decided to go into this work an easier method is to run three or four pins crisscross through the cork. The pins sticking into the fingers will prevent accidental use of the contents."

of hatching eggs in the spring. The first ad was placed in the classified department of a local poultry journal, part the results were swaited with high partment of a local poultry journal, and the results were awaited with high expectations. As I recall it now, from a more experienced standpoint, it is a wonder that I heard anything from the another acre to poultry, and cow pasture, with a few cows, a hundred chickens, and three or four brood sows will support the ordinary family of five, with enough left over to pay into business on a larger scale.

Wonder that I heard anything from the 160,000 tons of steel. with many other like advertisements; but I sold enough to encourage me into business on a larger scale.

Building the Poultry Houses.

There are so many different theories relative to the proper construction of a semer and Lake Erie, 1,500 for the Balpoultry house that I was somewhat uzzled when I really got to the point where I was to build one. I decided to have a semi-open-front coop, with Lime neutralizes acid soil and sweetens it.

Lime builds up soil—it restores impoverished lands.

Lime when used intelligently with other fertilizers increases productivity to a remarkable extent.

Lime may be spread to advantage any time of the year.

Lime and fertilizers should be applied according to the experience of the agricultural experiment station.

Increasing the Flock.

After my second year I found White Orpingtons were also becoming very popular, and, as I was associated with from these yards. My advertising was beginning to bring better returns and the demand for hatching eggs became greater than my supply. I received \$3 per setting of fifteen eggs, and managed to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give me an avaged to dispose of my entire output. The eighty hens would give mainly for export, but including 8,000 tons each for the Long Island and Texas Pacific, while additional contracts for two exports. The sale of the mainly for export, but including 8,000 tons each for the Long Island and Texas Pacific, while the New York municipal still in the market from these yards. My advertising was railways, while additional contracts for

How to Be Successful. I have shipped eggs and birds to near-

ly every state in the Union, to Canada, National Press Members Will Be and even as far as British Columbia. The real secret of the whole matter is one could go straight ahead without trouble. Stumps also occupy land that could be used for crops if the stumps were removed.

There are several ways of getting rid of stumps. If you or your neighbors have not a stump puller and you do not feel able to buy one, you may use dynamite. Or, if you do not can a dig them out. By all means, clear the land of stumps now, so that you can crop it early next spring.

Farm manure is one of the products of the farm that is often neglected. Manure when properly applied gives good returns. It has been found at experiment stations that manure has given a return of \$1.40 per load on heavy soils. To secure this tresult it was applied to a corn crop, which it increased, as well as the wheat crops that followed it. Had it been applied directly to the wheat these good results would likely not have been secured In fact, it might have brought in the first crop a decrease instead of the state of the stock and possibly make several sales.

At the Langdon, N. D., substation it to have good stock, and then to adver

For D. C. Voters in Iowa. DES MOINES, Iowa, February 12 .-

half bushels, and the good effects of the manure will extend to one or two more crops.

The drier the climate the slower the to cast ballots in Iowa elections, providing they comply with the registration requirements.

OF STOCK MARKET

Trading Largely Confined to Professionals, Swayed by Daily News.

COPPER ISSUES LEADERS IN QUOTATIONS OF WEEK

Steel and Iron Mills Continue to Take Orders to Limit of Their Capacities.

NEW YORK, February 12 .- Professional traders were in control of the market for the greater part of the week, governing their attitude or comnitments largely by the course of almost a negligible factor, except in solated instances and in the fresh underwritings offered by banking interests, which embraced new notes and

outset on what was accompted as practical closing of the Lusitania conroversy, but eased here and there later on profit taking and renewal of bearish aggressions. In the main, however, the level of quoted values was well maintained

tures, those issues soaring to new recconda came within hailing distance of its recent maximum. Inquiry for copper metal is more genuine and widespread

metal is more genuine and widespread than at any time in the country's history, and such quotations as 28 and 27 cents per pound for March and April delivery no longer seem to be regarded as extravagant.

The steel and iron industry is proceeding at full measure of productivity, as was evidenced by the small increase in unfilled orders reported by the United States Steel Corporation for January It is an indubitable fact that the mills, with few unimportant exceptions and is an indubitable fact that the mills, with few unimportant exceptions and for certain specialties, are practically unable to accept new business, and this condition is likely to prevail until the latter part of the year.

the west and middle west, where crops gains in the east and south.

gains in the east and south.

New foreign elements were injected into the situation later in the week as a result of the new policy of submarine warfare announced by Germany and Austria, and renewed attention was called to domestic politics through the resignation of the Secretary of War. New foreign loans, or commercial oredits, are said to be in process of consummation.

NEW YORK, February 13.-Many large consumers, anxious to obtain as manufacturing contracts, made tripe this week to Pittesburgh and Chicago resulting in heavy future commitments by the mills. The steel companies, although sold to full capacity for six to nine months, are taking care of the requirements of needy consumers, but large merchant distributers are unable to replenish stocks, although offering 2 cents a pound for bars and shapes and 2.10 cents for plates.

Car shops placed contracts for 65,000 tons of steel and 70,000 tons additional are about to be bought to cover the construction of 7,000 cars, contracts for which were recently placed. The roads have other inquiries in the et for 16,000 cars, which will require

Railroads Buying Cars.

semer and Lake Eric, 1,500 for the Baltimore and Ohio and 1,000 cars each for the New York Central and for the Lehigh Valley. The New York Central is expected to put out inquiries for 4,000 more cars and export specifications call for 10,000 cars.

The demand for motive power is urgent. Contracts for fourteen engines were placed this week and orders for 350 more are pending. The latter include intention of the New York Central, twenty for the Sessemer and Lake Erie and fifteen for the Erie. The building of these locomotives will require 140,000 tons of iron and

Rail Contracts Light.

Rail contracts amounted to only 12,000, popular, and, as I was associated with tons and made up of a number of small poultry firm that had excellent stock supplementary lots, the largest being in this variety, I secured my first birds 3,500 tons for the New York municipal

WRITERS FORM RIFLE CLUB

Trained by U. S. Experts.

was organized yesterday afternoon, when, at a meeting presided over by Capt. William C. Harllee of the United States Marine Corps, officers were elected and plans were made for holding monthly practice shoots at the government range at Winthrop, Md. More than twenty correspondents joined the club at yesterday's meeting,

The gun practice at the Winthrop range will include the use of both the Springfield and Krag-Jorgensen rifles and machine guns. Maj. C. T. Philips, secretary of the National Rifle Association of America, who was instrumental in the formation of the newspaper men's rifle organization yesterday, has made arrangements whereby the correspondents will be given their tutelage under the hands of government experts. The National Press Club rifle club will hold its first practice shoot the latter part of the month.

More than 4,800 persons have applied to join the latest British polar expedi-tion.

preater than the difference in price. RU-BER-OID roofs put on 23 years ago are still apparently as ____ SCOTCH COLLIE—Intelligent; 1 year old; reasonable. Apply 816 12th st. n.w. RU-BER-OID has been widely imitated. Get the genuine. Look for the Ru-ber-oid Man" (shown to the left) on every roll. Your

AAAAA

Poultry Yard Notes.

A correspondent of The Sunday Star asks how much formalin should be

Beall's S. C. White Legislother Bears from exhibition matting consisting of birds that won 1st pen. Ist and 2nd pullet at Laurel; 1st and 3rd pullet, Baltimore; 2nd pen, 1st. 4th, 5th and special for best pullet any variety. Hyattsville, 1915; mated to 2nd cockerel at Mt. Rainier, 1914; price, \$3.50 for 15. Utility eggs from free-range stock, \$1.50 for 15; \$7 for 100, guaranteed, Chicks, \$15 a 100. Electric car station on premises.

R. E. REALL, "Three Orks," Berwyn, Md.

eggs from the same birds you would find that the hundred eggs laid after they had reached maturity were something more than one and three-quarters pounds heavier than the eggs laid the yrevious year. 'The size of the chick at birth is in direct proportion to the size of the egg, and, furthermore, it has been shown by careful experiment that a chick that is behind the rest at the start is slower in maturing, grows slower and, as a general rule, never does attain the size of its brother which had the head start. This is just as much a rule of poultry raising as of any other line of animal husbandry. A pullet lays a small egg that hatches a small chick that fails to reach the size attained by another pullet hatched from a hen egg. In the course of time she comes into laying and produces an egg that is slightly smaller than the one from which she was hatched, which in turn produces a chick that is slightly smaller than she was at birth. This gradually subtracts from the size of the race. In addition, on an average the percentage of hen eggs that hatch compared with pullet eggs is 10 per cent greater. Chicks hatched from hen eggs show a mortality of 5 per cent, while those from pullet eggs show a mortality of 14½ per cent in experiments conducted at the Kansas station."

Keep every turkey in the flock under close observation, in order to separate and at once isolate any bird which gives evidence of the disease. To

Winter

Only

Layer

Payer

in a position to defend itself against are as fresh as can be obtained and, above all, keep them isolated from fowls and other domestic birds.

Democrats on Preparedness.

Senator Hollis of New Hampshire, a strong supporter of the administranight in Montclair, N. J., under the Upshur st. n.w.

DOG—Thoroughbred Great Blue Dane pup, 13 weeks old; unusual bargain; \$20. Box 338, Star office.

rangements for the meeting, which was held in Metropolitan Hall, was headed by Dallas Flannagan, son of W. W. Flannagan, secretary of the joint com-mittee of Congress on rural credits. Senator Hollis is chairman of the sub-Senator Hollis is chairman of the sub-committee of this joint committee, in charge of framing a land mortgage bill, and is the author of the bill, which was approved by the committee and has been introduced in the Senate and

ADDRESSES JERSEY CLUB.

Dr. Hess' Poultry Pan-a-ce-a

costs only ic a day for

30 fowls.

Here is Guaranteed Tonic—sold by reputable dealers all over this country on the basis of no eggs no pay; buy it on this UNDERSTANDING.

Headquarters for Pratt's Stock and Poultry Powders, All Feeds and Powders.

E. T. SIMPSON & CO.,

tion's preparedness program, delivered an address on "Preparedness" Friday auspices of the Montclair Democratic

Senator Hollis Talks to Montclair

FOR SALE, rent or use on shares, one Prairie State incubator. 400-egg capacity, two Prairie State hovers, late models. Address Box 66, Star office.

The committee in charge of the ar-

he disease. In fattening turkeys for the market

THE STANDARD PAINT CO.

Building Book Coupon THE STANDARD PAINT CO.
Woolworth Building, New York
and samples of RU-BER-OID and books oppo-

lough of a usrplus to dispose of to neighbors—cannot to soon begin to study the dairy type of cow. Conformation means much in the production of milk; the whole makeup of the cow, from her nose to the tip of her tail, contributes comething to type. A writer in the Jersey Bulletin says a celebrated breeder once remarked to him that if he could to see any more, as the head would de-termine the conformation of the rest of termine the conformation of the rest of the cow's body. This is true to some ex-tent, as a medium-sized, angular body is tent, as a medium-sized, angular body is usually associated with a medium-sized angular head, and the short, compact head is usually associated with the same general conformation of body. A broad mouth in any type of animal is indicative of good feeding qualities, and as this is an important consideration in the dairy animal, this type of mouth should be sought. This, in connection with a bright, open eye, with a good distance between the eyes and a strong muscular jaw, would be almost an ideal head for a good dairy cow. The head should be connected with the body by a rather long, thin neck, free from any tendency to meatiness.

the work of milking easy. The milk veins in the big-producing cow are With potatoes to be had at relative

with cornmeal or other grain supple-ment. Tankage, skim milk, or meat meal would probably add to the profit of the mixture. Potatoes when pre-pared in the manner described and under the conditions mentioned can often be fed to pigs with advantage.

The time of weaning will vary with conditions, but the best rule is to allow it five to seven months, as the work of the mare varies from heavy to light, but, if possible, don't wean the foal before four months.

The common tapeworm of lambs

Some experts think it ought to be 100.

A good way to feed large beets and mangels is to lay them on a heavy plank and drive a spike through the vegetable and far enough into the plank so it will hold the beet in place so the hens can pick at it, as in this way it can be kept clean. Some poultrymen say hens will not eat turnips. This is because the turnips are tough, but if they are chopped rather fine the hens will eat them greedign any kind of vegetables the fowls are slow to take hold of, including apple and potato parings, that are to be fed raw. Do not allow the hens to eat frozen vegetables.

During the siege of the Kansas horse disease some man unfamiliar with the normal conditions in horses for the first time found palisade with the normal conditions in horses dead horses. He at once jumped at the conclusion that these worms were responsible for the disease. Had he known that approximately 95 per cent of all horses have these same worms, his reputation might not have suffered. It is rather common for veterinarians to diagnose tapeworms in dogs, and in about 95 per cent these diagnoses are correct, but that the tapeworms in these animals are responsible for dispersion of the conclusion that these worms were responsible for the disease. Had he conclusion that these worms were responsible for the disease some man unfamiliar with the normal conditions in horses disease some man unfamiliar with the normal conditions in horses disease. During the siege of the Kansa

Extensive investigations have been car-

In summarizing the results of one experiment at the Nebraska station, Prof. Charles B. Lee calls attention to the fact that fourteen head of spring pigs were fed for six weeks on shelled corn and tankage, the corn and tankage being fed through separate self feeders. When the test began the average weight of the pigs was 167 pounds, and when it closed they averaged 252 pounds. This shows an

eral, gave an opinion today holding that Iowa residents of Washington,

Coppers Marked Features

Coppers were the outstanding fea-

Heavy Railroad Earnings.

Extraordinary earnings were reported by leading railway lines for December, notably the New York Central system, and, although tonnage is decreasing in have been largely moved to market, it is losing none of its recent tremendous

Consumers of Steel Are **Urgent in Their Demands**

These inquiries include 5,000 for the Chicago and Northwestern, 1,300 for the Illinois Central, 2,400 for the Bes-

tives will require 140,000 tons of iron and

The National Press Club Rifle Club

joined the club at yesterday's meeting, and it is expected the membership will be further enlarged during the coming week.

The officers elected yesterday were: President, Jefferson Jones; vice president, Edwin C. Reed; secretary, Robert L. Marcley, and treasurer, Earl H. Smith. Lynn M. Lamm was appointed ex officio.

The gun practice at the Winthrop range will include the use of both the